

A1
22. (Amended) The method of claim 9, further including the step of determining relative expression levels of detected genes and wherein the relative expression levels of detected genes vary by at least 1000 fold.
CONC.

23. (Amended) The method of claim 1, wherein the probe array comprises all probes of a given length.

A2
25. (Amended) The method of claim 2, further comprising cleaving nucleic acids into fragments.

Beginning with actual claim 43, filed as second claim 42, the claims have been misnumbered and should be renumbered as follows:

A3
43. (Amended) A method of identifying a specific cell type comprising:
determining an expression profile of a plurality of cells;
classifying the cells in clusters determined by similarity of expression profile;
determining the nature and function of a plurality of cells.

44. (Amended) The method of claim 42 wherein the cells originate from the adult brain.

45. (Amended) The method of claim 41 wherein the cells originate from peripheral sensory organs.

46. (Amended) The method of claim 41 wherein one of the plurality of cells can be deduced to have stem cell potentials.